A New Species of *Pecluma* (Pteridophyta–Polypodiaceae)

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Abstract. A new species of *Pecluma* M. G. Price, *P. barituensis* O. Martínez & de la Sota, is described from material collected from the northwestern forests and mountain woods in Argentina. This taxon is related to *Pecluma oranensis* (de la Sota) de la Sota, from which it differs with its pinnae narrower at mid-rachis, thereby appearing farther apart, and its auriculiform basal pinnae.

Resumen. Se describe y se ilustra una nueva especie de *Pecluma*, *P. barituensis* O. Martínez & de la Sota, sobre material proveniente de las selvas y bosques montanos del noroeste argentino. Este taxón es afín a *Pecluma oranensis* (de la Sota) de la Sota, del que difiere principalmente por sus pinnas medias más delgadas y apareciendo así más distanciadas y las basales auriculiformes.

Key words: Argentina, *Pecluma*, Polypodiaceae.

The genus *Pecluma* M. G. Price (Polypodiaceae) includes more than 30 species that grow in American tropical and subtropical regions. In Argentina, Ponce (1996) quoted eight species, three of which grow in the Argentinean northwest region.

By reviewing Evans's (1969) and Price's (1983) works on the *Polypodium pectinatum-plumula* complex and on *Pecluma* and by floristic studies carried out on the American continents (de la Sota, 1973, 1977, 1995; Tryon & Tryon, 1982; Mickel & Beitel, 1988; Tryon & Stolze, 1993; Moran, 1995; de la Sota & Martínez, 1998; Salino, 1998; Mickel & Smith, 2004; Kessler & Smith, 2005), it is concluded that the specimen described here is a new taxon.

Pecluma barituensis O. Martínez & de la Sota, sp. nov. TYPE: Argentina. Prov. Salta: Dpto. Santa Victoria, Parque Nac. Baritú, 1500 m, 14 July 1999, *O. G. Martínez & E. R. de la Sota 693* (holotype, MCNS; isotype, LP). Figure 1.

Plantae epiphyticae raro terrestres, affines *Peclumae oranensi* (de la Sota) de la Sota sed rhizomate breviter repente, frondibus gracilibus usque ad 70 cm longis, cum segmentis medianis plus angustis et plus distantibus et segmentis basalibus manifeste reductis ad auriculas parvulas, sporis 64, clare verrucosis differunt.

Epiphytic plants, rarely terrestrial; rhizome short-creeping, 3–5 mm diam., with clathrate scales that are deltoid to lanceolate, basifixed, brown, ovate to cordate, with entire margin, with and without trichomes at the back, to 1 cm. Fronds 50–70 cm, petioles 1/5–1/4 of the frond's length, terete, dark brown, articulate to the rhizome, with short phyllopodia, 1–2 mm; laminae elliptic to lanceolate, papyrus-like, slender, pectinate, 40–50 × 8–10 cm, attenuate at the base, gradually attenuate toward the tip; rachis dark, pilose with abundant appressed trichomes, ctenoid, multicellular, 0.3–0.5 mm, denser adaxially; pinnae to 85 pairs; basal pinnae reduced to auricles; pinnae on mid-rachis distant, linear to linear-lanceolate, perpendicular to the rachis, 4–5 × 0.2–0.5 cm, margin entire with hyaline trichomes, lamina with scattered clavate trichomes and setose trichomes over the costae. Lateral veins 1- or 2-forked, with circular superficial sori, 1 mm diam., with receptacles bearing simple or ramified trichomes, as paraphyses; sporangia glabrous; spores 64, spores monolete reniform, clearly verrucose.

Geographic distribution and habitat. The new species is an epiphyte and occasionally terrestrial. It was observed as frequent in forests or humid montane woods, between 1200 and 1500 m, in Salta and Jujuy provinces in northwestern Argentina.

This species had been previously identified in Argentina as *Pecluma oranensis* because both species are found in montane forests or yungas. However, *P. barituensis* can be easily distinguished from *P. oranensis*, as can be seen in Table 1.

In addition, although it is not a diagnostic character, it should be noted that the pinnae are consistently outspread. Usually, in other poikilohydric taxa of this

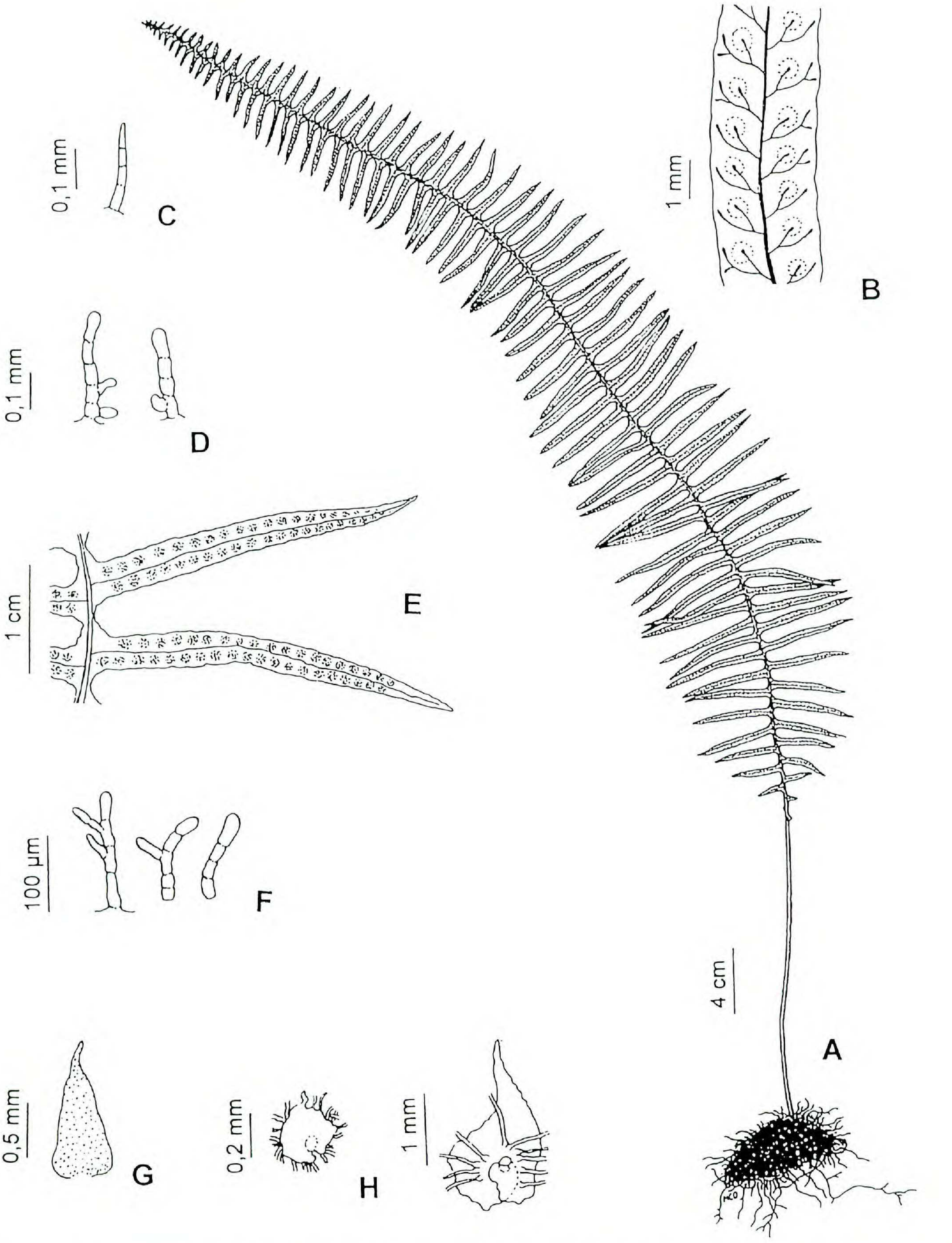

Figure 1. *Pecluma barituensis* O. Martínez & de la Sota. —A. Habit. —B. Close-up of median pinna showing the venation pattern and the sori position. —C. Setose trichome from the rachis. —D. Ctenoid trichomes from the rachis. —E. Pair of pinnae. —F. Simple and ramified trichomes on the sori receptacles. —G. Rhizome scale, drawn without trichomes. —H. Rhizome scales, with trichomes. Drawn from the holotype *O. G. Martínez & E. R. de la Sota 693* (MCNS).

Table 1. Morphological comparison of *Pecluma barituensis* and *P. oranensis*

	P. barituensis	*P. oranensis*
Pinnae on mid-rachis	4–5 × 0.2–0.5 cm	6–7 × 0.6–0.7 cm
Distance between pinnae	usually greater than their width	equal to their width
Basal pinnae	auriculiform	subdilated
Apical pinnae	gradually reduced, 8 to 10 pairs, perpendicular to the rachis	attenuated, 5 to 6 pairs, oblique to the rachis

genus, the pinnae are contracted to reduce the evapotranspirational surfaces, as an adaptation to decreased atmospheric relative humidity.

In this contribution, paraphyses are defined by the criteria given by de la Sota (1986), interpreting the indument of the sori receptacles.

Paratypes. ARGENTINA. **Salta:** Dpto. Anta, Parque Nac. El Rey, Arroyo Quina, *A. Brown 1355* (MCNS); Dpto. Santa Victoria, Parque Nac. Baritú, *O. G. Martínez & V. Aquino 1025* (MCNS), *1028* (MCNS), *1031* (MCNS), *O. G. Martínez, E. R. de la Sota, L. Novara & A. Ganem 685* (MCNS). **Jujuy:** Dpto. Ledesma, Parque Nac. Calilegua, camino a La Mesada y Abra de Cañas, *A. Brown 1714* (MCNS).

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